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TITLE : FUEL ELECTRODE AND ITS MANUFACTURE FOR SOLID ELECTROLYTE TYPE FUEL CELL

ABSTRACT : PURPOSE: To enlarge the reaction area of nickel to improve the activity of electrodes, and to eliminate the coagulation and the sintering of nickel during the operation of a cell to prevent the deterioration, by dispersing zirconia particles on the surface of porous fuel electrode frames consisting of fuel electrode materials containing nickel.

CONSTITUTION: To a fuel electrode frame material powder containing nickel oxide powder a specified amount of zirconia powder of smaller mean particle diameter than that of the nickel oxide powder is added to prepare a powder. Then the prepared powder is coated on solid electrolyte as a film, baked and deoxidized. Thereby the reaction area on nickel grains in the porous fuel cell frames after deoxidation can be enlarged to improve the activity of electrodes, and electrode frames can be constructed in continued branches of fused nickel grains and zirconia grains to prevent the deterioration.

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